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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,632	11/12/2003	Thomas J. Langenfeld	36400.28US2	7989
25541	7590	10/12/2004	EXAMINER	
NEAL, GERBER, & EISENBERG SUITE 2200 2 NORTH LASALLE STREET CHICAGO, IL 60602			KERSHTEYN, IGOR	
			ART UNIT	PAPER NUMBER
			3745	

DATE MAILED: 10/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/706,632

Applicant(s)

LANGENFELD, THOMAS J.

Examiner

Igor Kershteyn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/12/2003</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (5,201,692) in view of Huebner (4,034,652).

In figures 1-5, Johnson et al. teach a hydrostatic transmission, comprising: a hydraulic pump 14 and a hydraulic motor 27; and a center section 74 having a pump running surface 130 on which the hydraulic pump 14 rotates and a motor running surface 61 on which the hydraulic motor 27 rotates, the center section 74 having porting 86,87 by which the hydraulic pump 14 and the hydraulic motor 27 are in fluid communication; wherein the porting terminates in a pair of equidistantly spaced, generally arcuate shaped openings 136,137 on the pump running surface 130, the pump running surface 130 includes a plurality of generally v-shaped grooves (not numbered) extending from each of the ends of the generally arcuate shaped openings 136,137.

Johnson et al. don't teach the each of the grooves has an arc-length that is approximately 24.5 percent of the arc-length of the average distance between the ends of the generally arcuate shaped openings.

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Huebner, in figure 2, teaches a pump running surface having a pair of equidistantly spaced, generally arcuate shaped openings 62, 60 on the pump running surface, the pump running surface includes a generally v-shaped groove 64 extending from the end of the generally arcuate shaped opening 60, the groove 64 has an arc-length that is approximately 24.5 percent of the arc-length of the average distance between the ends of the generally arcuate shaped openings 60, 62.

Since Johnson et al. and Huebner are analogous art because they are from the same field of endeavor, that is the axial piston hydraulic pump art, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the pump running surface grooves of Johnson et al. with the arc-length as taught by Huebner for the purpose of reducing noise in the hydraulic pump and improving lubrication of the pump pistons.

#### ***Allowable Subject Matter***

Claims 2-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 13 is allowed.

#### ***Prior Art***

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consist of four patents.

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Berthold et al. (4,920,856) is cited to show a hydraulic pump having a running surface with kidney slots and v-shaped grooves extending from end portions of the slots but fails to teach the arc-length of the grooves 24.5% of the arc-length of the distance between the ends of the slots.

Berthold et al. (4,934,253) is cited to show a hydraulic pump having a running surface with kidney slots and v-shaped grooves extending from end portions of the slots but fails to teach the arc-length of the grooves 24.5% of the arc-length of the distance between the ends of the slots.

Hugelman (5,724,879) is cited to show a hydraulic pump having a plurality of pistons and a pump running surface but fails to teach a plurality of v-shaped grooves and a pitch diameter of 1.52".

Valentin (6,406,271) is cited to show a hydraulic pump having a plurality of pistons and a pump running surface but fails to teach a plurality of v-shaped grooves and a pitch diameter of 1.52".

#### ***Contact information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kershteyn whose telephone number is (703) 308 8317. The examiner can be reached on Monday-Friday from 8:00 a.m. to 4:30 p.m.

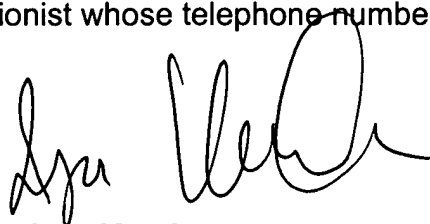
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached on (703) 308 1044. The fax number is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308 0861.

IK

October 6, 2004



**Igor Kershteyn**  
**Patent examiner.**  
**Art Unit 3745**



**EDWARD K. LOOK**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**

10/10/04